Claims

1. A viral expression vector comprising a nucleic acid which comprises (1) a transcriptional start site; (2) a promoter operably linked to the transcriptional start site; and (3) an enhancer operably linked to the promoter, the enhancer comprising the DNA sequence of SEQ ID NO:1 or the RNA equivalent thereof.

2. The viral expression vector of claim 1, wherein the vector is a retrovirus.

3. The viral expression vector of claim 1, wherein the promoter drives transcription of a mRNA encoding a polypeptide, the transcription beginning from the transcriptional start site.

4. The viral expression vector of claim 3, wherein the polypeptide is a growth hormone.

5. The viral expression vector of claim 1, wherein the promoter is a tissue-specific promoter.

6. The viral expression vector of claim 5, wherein the promoter is a ζ-globin promoter.

7. The viral expression vector of claim 1, wherein the enhancer comprises SEQ ID NO:2 or the RNA equivalent thereof.

8. The viral expression vector of claim 7, wherein the enhancer comprises SEQ ID NO:3 or the RNA equivalent thereof.

9. The viral expression vector of claim 1, wherein the nucleic acid further comprises a transcriptional termination signal that terminates transcription from the transcriptional start site.

10. The viral expression vector of claim 9, wherein the vector is a retrovirus.

11. The viral expression vector of claim 9, wherein the promoter drives transcription of a mRNA encoding a polypeptide, the transcription beginning from the transcriptional start site.

12. The viral expression vector of claim 9, wherein the transcriptional termination signal is a polyadenylation signal.

13. A transgenic animal whose somatic and germ line cells contain at least one copy of a transgene comprising (1) a transcriptional start site; (2) a promoter operably linked to the transcriptional start site; and (3) an enhancer operably linked to the promoter, the enhancer comprising the nucleotide sequence of SEQ ID NO:1,

wherein the transgenic animal expresses a transcript driven by the promoter, the level of expression in at least one cell type of the animal being proportionally dependent on the copy number of the transgene.

14. The transgenic animal of claim 13, wherein the animal is a rodent.

15. The transgenic animal of claim 14, wherein the animal is a mouse.

16. The transgenic animal of claim 15, wherein the somatic and germ line cells contain more than 5 copies of the transgene.

17. The transgenic animal of claim 16, wherein the somatic and germ line cells contain more than 15 copies of the transgene.

18. The transgenic animal of claim 17, wherein the promoter drives transcription of a mRNA encoding a polypeptide, the transcription beginning from the transcriptional start site.

19. The transgenic animal of claim 18, wherein the polypeptide is a growth hormone.

20. The transgenic animal of claim 19, wherein the promoter is a ζ-globin promoter, and the at least one cell type is a erythroblast.

21. The transgenic animal of claim 20, wherein the enhancer comprises SEQ ID NO:2.

22. The transgenic animal of claim 21, wherein the enhancer comprises SEQ ID NO:3.